

Notice of Allowability

Application No.

10/713,729

Examiner

David Silver

Applicant(s)

MCGAUGHY ET AL.

Art Unit

2128

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Brief filed 9/19/2007.
2. ☒ The allowed claim(s) is/are 1-24.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date <u>Apr 25, 2007</u> | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |



KAMINI SHAH
SUPERVISORY PATENT EXAMINER

DETAILED ACTION

1. Claims 1-24 were originally presented for Examination.
2. Claims 1-24 are pending in Instant Application.
3. Claims 1-24 are allowed over the prior art of record.

Response: Double Patenting

4. Upon further consideration and the clarification provided on page 4-5 section VII.A (emphasis on page 5 second to last paragraph). Further, the PCI is expressly defined by the definition provided in the Specification (dated 11/13/2003) page 14. The clear, deliberate, and precise definition of PCI is not identical to the definition of the "matrix" (reference), which was used as PCI's equivalent. Applicants pointed to claim 4 to further define the structure of the PCI (**Brief: page 5 second to last paragraph**).

Accordingly, the double patenting rejection is **withdrawn**.

Allowable Subject Matter

5. The following is the Examiner's statement of reasons for allowance:
6. As per claim 1, the most relevant prior-art of record is Tcherniaev (**US 6,577,992**) that discloses the claim as follows:
 1. A method of simulating a circuit having a hierarchical data structure, comprising:
 - representing the circuit as a hierarchically arranged set of branches, including a root branch and a plurality of other branches logically organized in a graph (**Fig 2A and text further expanding on the features**);
 - the hierarchically arranged set of branches including a first branch that includes one or more leaf circuits and a second branch that includes one or more leaf circuits (**Fig 2A and text further expanding on the features**);
 - wherein the first branch and second branch are interconnected in the graph through a third branch at a higher hierarchical level in the graph than the first and second branches (**Fig 2A and text further expanding on the features**);
 - selecting a group of leaf circuits from the first and second branches for simulation (**Fig 2A items 206 & 208 and text further expanding on the features**);
 - representing the two or more leaf circuits as a merged leaf circuit in response to two or more leaf circuits of the circuit having a substantially same isomorphic behavior (**col: 3 line: 56 to col: 4 line: 27**).
7. The prior art does not explicitly disclose or suggest:
 - creating a first port connectivity interface dynamically for the group of leaf circuits in response to the merged leaf circuit; wherein the first port connectivity interface communicates changes in signal conditions among the group of leaf circuits; and
 - simulating the group of leaf circuits in accordance with the first port connectivity interface.

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The PCI is expressly defined by the Specification (**Spec dated 11/13/2003: page 14**). The leaf circuit, branch circuit, input port, output port (of the PCI), Branch Node Circuit, isomorphic behavior, and load are all expressly defined by the Specification. The section of the Specification titled "Definitions" are all clear, deliberate, and precise, And therefore govern how the claims are read.

Applicants implicitly stated that the isomorphic behavior does not concern electrical properties of connections between leaf circuits, but merely electrical properties of leaf circuits. Meaning, electrical properties of leaf circuits do not take into consideration the properties of connections (Brief: page 6 section 2).

8. Similar independent claims and claims that depend therefrom are allowable because they incorporate allowable subject matter of the above-allowed claims.

The art of record, either individually or in combination, fails to teach, suggest, or render obvious invention having the corresponding function that is claimed. In view of the foregoing, the Instant Claims of the present application are found to be patentable over the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Claims 1-24 are found allowable over prior-art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Silver whose telephone number is (571) 272-8634. The examiner can normally be reached on Monday thru Friday, 10am to 6:30pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamini Shah can be reached on 571-272-2279. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/ DS /

David Silver, Patent Examiner
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SUPERVISORY PATENT EXAMINER